



GSMP:

General Specifications Change Notification (GSCN)

GSCN #	GSCN Name	Effective Date
14-221	Application Identifier for software version control	1 Oct 2015

Instructions for completing the GSCN:

1. The GS1 Process Manager will complete the GSCN Name, Associated WO Number, Background and General Specification Change sections of the GSCN..

The *GSCN Name* is the short descriptive name used with the work order number.

The *WO Number* is the work order number associated with either a simple, complex or errata change request.

The *Background* is the description that is used when posting and announcing the public reviews for the GSCN.

The *General Specification Change* shall be a listing of the file names for attached documents that are copies of the current affected section(s) of the general specification revised with track changes to illustrate the changes to the GS1 General Specification; a description of changes to be made to the general specification for global changes or errata type changes; or both attachments and changes.

3. The GS1 Communications Director shall complete the GSCN# and Effective Data when posting the approved and ratified GSCN to the web site.

The *GSCN#* will be a consecutive number with a two digit prefix for the year in which the posting occurs.

The *Effective Date* is the date of ratification by the Process Group.

Associated WO Number:

WR 14-221

Background:

There is a business need in healthcare to precisely identify healthcare standalone software with a distinct new Application Identifier. Typically, AI(10) has been used as a version control attribute, but there are many instances, including regulated healthcare software, where manufacturers must use the lot [AI(10)] field and a separate version control attribute for regulatory recalls. The GS1 General Specification does not allow the use of two AI(10).

AI 240, product variant, was considered as a solution to this requirement, but it was determined not to be appropriate since it is a generic attribute and the need is for a dedicated software version control AI.

The **ANSI MH10.8.2-2010** ANSI Data Identifier 16S includes a similar version control field of 18 characters; highlighting a precedent in industry for such a precise field.



3.1. Introduction

This section describes the meaning, structure, and function of the GS1 System Element Strings so they can be correctly processed in users' application programmes. An Element String is the combination of a GS1 Application Identifier and a GS1 Application Identifier Data Field. The allowable character set to be used for GS1 Application Identifier Element Strings is defined in section 7.11. There are AIs that have additional syntax restrictions, e.g. numerical only; see below definition for each AI.

Automatic processing of Element Strings in business applications requires information about the type of transaction to which the transferred data refers. See Section 7 for an explanation of this process. Element Strings can be carried by GS1-128, GS1 DataBar Symbology, GS1 Composite, and GS1 DataMatrix and GS1 QR Code Symbols. The rules for use and interrelationships between the Application Identifiers are contained in Section 2 and 4.

When a pre-defined length GS1 Key and attributes are encoded together, the GS1 Key should appear before the attributes. In most cases pre-defined length element strings should be followed by non pre-defined element strings. The sequence of pre-defined and non pre-defined element strings should be at the discretion of the brand owner.

3.2. GS1 Application Identifiers in Numerical Order

Figure 3.2-1. GS1 Application Identifiers

AI	Data Content	Format (*)	FNC1 Required (****)	Data Title
00	Serial Shipping Container Code (SSCC)	N2+N18		SSCC
01	Global Trade Item Number (GTIN)	N2+N14		GTIN
02	GTIN of Contained Trade Items	N2+N14		CONTENT
10	Batch or Lot Number	N2+X..20	(FNC1)	BATCH/LOT
11 (**)	Production Date (YYMMDD)	N2+N6		PROD DATE
12 (**)	Due Date (YYMMDD)	N2+N6		DUE DATE
13 (**)	Packaging Date (YYMMDD)	N2+N6		PACK DATE
15 (**)	Best Before Date (YYMMDD)	N2+N6		BEST BEFORE or BEST BY
16 (**)	Sell By Date (YYMMDD)	N2+N6		SELL BY
17 (**)	Expiration Date (YYMMDD)	N2+N6		USE BY OR EXPIRY
20	Variant Number	N2+N2		VARIANT
21	Serial Number	N2+X..20	(FNC1)	SERIAL
240	Additional Item Identification	N3+X..30	(FNC1)	ADDITIONAL ID
241	Customer Part Number	N3+X..30	(FNC1)	CUST. PART NO.
242	Made-to-Order Variation Number	N3+N..6	(FNC1)	MTO VARIANT
243	Packaging Component Number	N3+X..20	(FNC1)	PCN
250	Secondary Serial Number	N3+X..30	(FNC1)	SECONDARY SERIAL
251	Reference to Source Entity	N3+X..30	(FNC1)	REF. TO SOURCE
253	Global Document Type Identifier (GDTI)	N3+N13+X..17	(FNC1)	GDTI



AI	Data Content	Format (*)	FNC1 Required (****)	Data Title
254	GLN Extension Component	N3+X..20	(FNC1)	GLN EXTENSION COMPONENT
255	Global Coupon Number (GCN)	N3+N13+N..12	(FNC1)	GCN
30	Count of Items (Variable Measure Trade Item)	N2+N..8	(FNC1)	VAR. COUNT
310 (***)	Net weight, kilograms (Variable Measure Trade Item)	N4+N6		NET WEIGHT (kg)
311 (***)	Length or first dimension, metres (Variable Measure Trade Item)	N4+N6		LENGTH (m)
312 (***)	Width, diameter, or second dimension, metres (Variable Measure Trade Item)	N4+N6		WIDTH (m)
313 (***)	Depth, thickness, height, or third dimension, metres (Variable Measure Trade Item)	N4+N6		HEIGHT (m)
314 (***)	Area, square metres (Variable Measure Trade Item)	N4+N6		AREA (m ²)
315 (***)	Net volume, litres (Variable Measure Trade Item)	N4+N6		NET VOLUME (l)
316 (***)	Net volume, cubic metres (Variable Measure Trade Item)	N4+N6		NET VOLUME (m ³)
320 (***)	Net weight, pounds (Variable Measure Trade Item)	N4+N6		NET WEIGHT (lb)
321 (***)	Length or first dimension, inches (Variable Measure Trade Item)	N4+N6		LENGTH (i)
322 (***)	Length or first dimension, feet (Variable Measure Trade Item)	N4+N6		LENGTH (f)
323 (***)	Length or first dimension, yards (Variable Measure Trade Item)	N4+N6		LENGTH (y)
324 (***)	Width, diameter, or second dimension, inches (Variable Measure Trade Item)	N4+N6		WIDTH (i)
325 (***)	Width, diameter, or second dimension, feet (Variable Measure Trade Item)	N4+N6		WIDTH (f)
326 (***)	Width, diameter, or second dimension, yards (Variable Measure Trade Item)	N4+N6		WIDTH (y)
327 (***)	Depth, thickness, height, or third dimension, inches (Variable Measure Trade Item)	N4+N6		HEIGHT (i)
328 (***)	Depth, thickness, height, or third dimension, feet (Variable Measure Trade Item)	N4+N6		HEIGHT (f)
329 (***)	Depth, thickness, height, or third dimension, yards (Variable Measure Trade Item)	N4+N6		HEIGHT (y)
330 (***)	Logistic weight, kilograms	N4+N6		GROSS WEIGHT (kg)
331 (***)	Length or first dimension, metres	N4+N6		LENGTH (m), log
332 (***)	Width, diameter, or second dimension, metres	N4+N6		WIDTH (m), log
333 (***)	Depth, thickness, height, or third dimension, metres	N4+N6		HEIGHT (m), log
334 (***)	Area, square metres	N4+N6		AREA (m ²), log
335 (***)	Logistic volume, litres	N4+N6		VOLUME (l), log
336 (***)	Logistic volume, cubic metres	N4+N6		VOLUME (m ³), log
337 (***)	Kilograms per square metre	N4+N6		KG PER m ²
340 (***)	Logistic weight, pounds	N4+N6		GROSS WEIGHT (lb)



AI	Data Content	Format (*)	FNC1 Required (****)	Data Title
341 (***)	Length or first dimension, inches	N4+N6		LENGTH (i), log
342 (***)	Length or first dimension, feet	N4+N6		LENGTH (f), log
343 (***)	Length or first dimension, yards	N4+N6		LENGTH (y), log
344 (***)	Width, diameter, or second dimension, inches	N4+N6		WIDTH (i), log
345 (***)	Width, diameter, or second dimension, feet	N4+N6		WIDTH (f), log
346 (***)	Width, diameter, or second dimension, yard	N4+N6		WIDTH (y), log
347 (***)	Depth, thickness, height, or third dimension, inches	N4+N6		HEIGHT (i), log
348 (***)	Depth, thickness, height, or third dimension, feet	N4+N6		HEIGHT (f), log
349 (***)	Depth, thickness, height, or third dimension, yards	N4+N6		HEIGHT (y), log
350 (***)	Area, square inches (Variable Measure Trade Item)	N4+N6		AREA (i ²)
351 (***)	Area, square feet (Variable Measure Trade Item)	N4+N6		AREA (f ²)
352 (***)	Area, square yards (Variable Measure Trade Item)	N4+N6		AREA (y ²)
353 (***)	Area, square inches	N4+N6		AREA (i ²), log
354 (***)	Area, square feet	N4+N6		AREA (f ²), log
355 (***)	Area, square yards	N4+N6		AREA (y ²), log
356 (***)	Net weight, troy ounces (Variable Measure Trade Item)	N4+N6		NET WEIGHT (t)
357 (***)	Net weight (or volume), ounces (Variable Measure Trade Item)	N4+N6		NET VOLUME (oz)
360 (***)	Net volume, quarts (Variable Measure Trade Item)	N4+N6		NET VOLUME (q)
361 (***)	Net volume, gallons U.S. (Variable Measure Trade Item)	N4+N6		NET VOLUME (g)
362 (***)	Logistic volume, quarts	N4+N6		VOLUME (q), log
363 (***)	Logistic volume, gallons U.S.	N4+N6		VOLUME (g), log
364 (***)	Net volume, cubic inches (Variable Measure Trade Item)	N4+N6		VOLUME (i ³)
365 (***)	Net volume, cubic feet (Variable Measure Trade Item)	N4+N6		VOLUME (f ³)
366 (***)	Net volume, cubic yards (Variable Measure Trade Item)	N4+N6		VOLUME (y ³)
367 (***)	Logistic volume, cubic inches	N4+N6		VOLUME (i ³), log
368 (***)	Logistic volume, cubic feet	N4+N6		VOLUME (f ³), log
369 (***)	Logistic volume, cubic yards	N4+N6		VOLUME (y ³), log
37	Count of Trade Items	N2+N..8	(FNC1)	COUNT
390 (***)	Applicable Amount Payable or Coupon Value, local currency	N4+N..15	(FNC1)	AMOUNT
391 (***)	Applicable Amount Payable with ISO Currency Code	N4+N3+N..15	(FNC1)	AMOUNT
392 (***)	Applicable Amount Payable, single monetary area (Variable Measure Trade Item)	N4+N..15	(FNC1)	PRICE
393 (***)	Applicable Amount Payable with ISO Currency Code (Variable Measure Trade Item)	N4+N3+N..15	(FNC1)	PRICE
394n (***)	Percentage Discount of a coupon	N4+N4	(FNC1)	PRCNT OFF
400	Customer's Purchase Order Number	N3+X..30	(FNC1)	ORDER NUMBER
401	Global Identification Number for Consignment (GINC)	N3+X..30	(FNC1)	GINC

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GS1 General Specifications
Section 3: GS1 Application Identifier Definitions

AI	Data Content	Format (*)	FNC1 Required (****)	Data Title
402	Global Shipment Identification Number (GSIN)	N3+N17	(FNC1)	GSIN
403	Routing Code	N3+X..30	(FNC1)	ROUTE
410	Ship to - Deliver to Global Location Number	N3+N13		SHIP TO LOC
411	Bill to - Invoice to Global Location Number	N3+N13		BILL TO
412	Purchased from Global Location Number	N3+N13		PURCHASE FROM
413	Ship for - Deliver for - Forward to Global Location Number	N3+N13		SHIP FOR LOC
414	Identification of a Physical Location - Global Location Number	N3+N13		LOC No
415	Global Location Number of the Invoicing Party	N3+N13		PAY TO
420	Ship to - Deliver to Postal Code Within a Single Postal Authority	N3+X..20	(FNC1)	SHIP TO POST
421	Ship to - Deliver to Postal Code with ISO Country Code	N3+N3+X..9	(FNC1)	SHIP TO POST
422	Country of Origin of a Trade Item	N3+N3	(FNC1)	ORIGIN
423	Country of Initial Processing	N3+N3+N..12	(FNC1)	COUNTRY - INITIAL PROCESS.
424	Country of Processing	N3+N3	(FNC1)	COUNTRY - PROCESS.
425	Country of Disassembly	N3+N3	(FNC1)	COUNTRY - DISASSEMBLY
426	Country Covering full Process Chain	N3+N3	(FNC1)	COUNTRY – FULL PROCESS
427	Country Subdivision of Origin	N3+X..3	(FNC1)	ORIGIN SUBDIVISION
7001	NATO Stock Number (NSN)	N4+N13	(FNC1)	NSN
7002	UN/ECE Meat Carcasses and Cuts Classification	N4+X..30	(FNC1)	MEAT CUT
7003	Expiration Date and Time	N4+N10	(FNC1)	EXPIRY TIME
7004	Active Potency	N4+N..4	(FNC1)	ACTIVE POTENCY
7005	Catch Area	N4+X..12	(FNC1)	CATCH AREA
7006	First Freeze Date	N4+N6	(FNC1)	FIRST FREEZE DATE
7007	Harvest Date	N4+N6..12	(FNC1)	HARVEST DATE
7008	Species for Fishery Purposes	N4+X..3	(FNC1)	AQUATIC SPECIES
7009	Fishing Gear Type	N4+N..10	(FNC1)	FISHING GEAR TYPE
7010	Production Method	N4+X..2	(FNC1)	PROD METHOD
703s	Number of Processor with ISO Country Code	N4+N3+X..27	(FNC1)	PROCESSOR # s
710	National Healthcare Reimbursement Number (NHRN) – Germany PZN	N3+X..20	(FNC1)	NHRN PZN
711	National Healthcare Reimbursement Number (NHRN) – France CIP	N3+X..20	(FNC1)	NHRN CIP
712	National Healthcare Reimbursement Number (NHRN) – Spain CN	N3+X..20	(FNC1)	NHRN CN

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AI	Data Content	Format (*)	FNC1 Required (****)	Data Title
713	National Healthcare Reimbursement Number (NHRN) – Brasil DRN	N3+X..20	(FNC1)	NHRN DRN
nnn (****)	National Healthcare Reimbursement Number (NHRN) – Country “A” NHRN	N3+X..20	(FNC1)	NHRN xxx
8001	Roll Products (Width, Length, Core Diameter, Direction, Splices)	N4+N14	(FNC1)	DIMENSIONS
8002	Cellular Mobile Telephone Identifier	N4+X..20	(FNC1)	CMT No
8003	Global Returnable Asset Identifier (GRAI)	N4+N14+X..16	(FNC1)	GRAI
8004	Global Individual Asset Identifier (GIAI)	N4+X..30	(FNC1)	GIAI
8005	Price Per Unit of Measure	N4+N6	(FNC1)	PRICE PER UNIT
8006	Identification of the Components of a Trade Item	N4+N14+N2+N2	(FNC1)	GCTIN
8007	International Bank Account Number (IBAN)	N4+X..34	(FNC1)	IBAN
8008	Date and Time of Production	N4+N8+N..4	(FNC1)	PROD TIME
8010	Component / Part Identifier (CPID)	N4 + X..30	(FNC1)	CPID
8011	Component / Part Identifier Serial Number (CPID SERIAL)	N4 + N..12	(FNC1)	CPID SERIAL
8012	Software Version	N4 + X..20	(FNC1)	VERSION
8017	Global Service Relation Number to identify the relationship between an organisation offering services and the provider of services	N4+N18	(FNC1)	GSRN - PROVIDER
8018	Global Service Relation Number to identify the relationship between an organisation offering services and the recipient of services	N4+N18	(FNC1)	GSRN - RECIPIENT
8019	Service Relation Instance Number (SRIN)	N4+N..10	(FNC1)	SRIN
8020	Payment Slip Reference Number	N4+X..25	(FNC1)	REF No
8110	Coupon Code Identification for Use in North America	N4+X..70	(FNC1)	-
8111 (**)	Loyalty Points of a Coupon	N4+N4	(FNC1)	POINTS
8200	Extended Packaging URL	N4+X..70	(FNC1)	PRODUCT URL
90	Information Mutually Agreed Between Trading Partners	N2+X..30	(FNC1)	INTERNAL
91 to 99	Company Internal Information	N2+X..30	(FNC1)	INTERNAL

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NOTES:

(*): The first position indicates the length (number of digits) of the GS1 Application Identifier. The following value refers to the format of the data content. The following convention is applied:

- N numeric digit
- X any character in [Figure 7.11-1](#)~~Figure 7.11-1~~
- N3 3 numeric digits, fixed length
- N..3 up to 3 numeric digits
- X..3 up to 3 characters in [Figure 7.11-1](#)~~Figure 7.11-1~~

(**): If only year and month are available, DD must be filled with two zeroes.

(***): The fourth digit of this GS1 Application Identifier indicates the implied decimal point position.

Example:

- 3100 Net weight in kg without a decimal point
- 3102 Net weight in kg with two decimal points

(****): All GS1 Application Identifiers indicated with (FNC1) are defined as of variable length and shall be delimited



Figure 3.9.10-1. Format of the Element String

Format of the Element String	
Application Identifier	Component / Part Identifier Serial Number
8011	N ₁ _____ variable length _____ N ₁₂

The data transmitted from the barcode reader means that the Element String denoting a C/P serial number has been captured. As this Element String is an attribute of a C/P identifier, it must be processed together with the C/P identifier of the C/P to which it relates. When indicating this Element String in the Non-HRI text section of a barcode label, the following Data Title should be used (see also Section 3.2): **CPID SERIAL**

3.9.11. Software Version

The Application Identifier (8012) indicates that the GS1 Application Identifier data field contains a software version number. Software versioning is the process of assigning unique version numbers to unique states of computer software.

Examples include:

- Software versions for regulated healthcare device software
- Commercially available office productivity software (Microsoft® Word 2013 version 15.0.4701.1001, Adobe® Reader® XI version 11.0.10)

This AI may be combined with AI 10 (lot/batch) when the manufacturer decides that both lot and version control are required to meet regulatory or commercial requirements.

The data is alphanumeric and may include all characters contained in Figure 7.11-1.

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Figure 3.9.11-1. Format of the Element String

Format of the Element String	
Application Identifier	Software version
8012	X ₁ _____ variable length _____ X ₂₀

The data transmitted by the barcode reader means that the Element String denoting a software version has been captured. As this Element String is an attribute of a software trade item, it must be processed with the GTIN of the software to which it is related. When indicating this Element String in the Non-HRI text section of a label, the following Data Title should be used (see also Section 3.2): **VERSION**

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3.9.11-3.9.12. Global Service Relation Numbers (GSRN): AIs (8017, 8018)

The Application Identifiers (8017, 8018) indicate that the GS1 Application Identifier data field contains a GSRN (Global Service Relation Number). The GSRN is used to identify either the recipient or individual provider of services in the context of a service relationship. In order to provide identification for both roles in a service relationship, recipient and provider, two GSRN AIs are available. The resultant Element String provides a means for the service provider to store data relevant to services provided to the recipient and by the individual provider.



the same GTIN on a given item. It is possible and permissible to change one of these NHRNs without a change to the other NHRNs or to the GTIN.



Note: It is not allowed to have multiple of the same NHRN AI with different data associated with the same GTIN on a given item.

4.13.1. Invalid Pairs of Element Strings

This section defines the pairs of Element Strings that cannot appear on the same physical entity.

Figure 4.13.1-1. Invalid Pairs of Element Strings

Pair of Element Strings				Comment
AI	Designation	AI	Designation	
01	Identification of a trade item	01	Identification of a trade item	Duplicate Global Trade Item Numbers (GTINs) with different values
01	Identification of a trade item	02	Identification of logistic unit contents	AI (02) must not be used for the identification of trade items contained in a trade item.
01	Identification of a trade item	37	Count of units contained	The count of units contained would duplicate the master data of the GTIN. AI (37) may only be used with AI (02).
242	Made-to-Order Variation	01 or 02 with N _i not equal to 9	Identification of a Variable Measure Trade Item	Made-to-Order Variation can only be used with a GTIN-14, Indicator digit 9. This represents a Custom Industrial Supply Item
420	Ship to postal code, single postal authority	421	Ship to postal code with ISO country code	Only one ship to postal code may be applied on an item
422	Country of origin of a trade item	426	Country of full processing	Duplication of country of origin of a trade item (covered by country of full processing)
423	Country of initial processing	426	Country of full processing	Duplication of country of initial processing (covered by country of full processing)
424	Country of processing	426	Country of full processing	Duplication of country of processing (covered by country of full processing)
425	Country of disassembly	426	Country of full processing	Duplication of country of disassembly (covered by country of full processing)
390n	Amount payable or Coupon value – single monetary area	391n or 394n or 8111	Amount payable – with ISO currency code or Percentage discount of a coupon or Loyalty Points of a coupon	Only one amount payable Element String may be applied on a payment slip or coupon and only one discount condition Element String may be applied on a coupon
392n	Amount Payable for a Variable Measure Trade Item – Single Monetary Area	393n	Amount Payable for a Variable Measure Trade Item and ISO Currency Code	Only one amount payable Element String may be applied on a Variable Measure Trade Item.

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Pair of Element Strings				Comment
AI	Designation	AI	Designation	
<u>394n</u>	<u>Percentage Discount of a coupon</u>	<u>390n or 8111</u>	<u>Coupon value or Loyalty Point of a coupon</u>	<u>Only one discount condition Element String may be applied on a coupon</u>
710, 711, 712, 713 (nnn)	National Healthcare Reimbursement Number	Any AI (01) allowable attributes	Any GTIN allowable attributes	When NHRN(s) are applied to the physical trade item with the mandatory association to the GTIN, any attribute AIs must only be processed with the GTIN and must not be processed with the NHRNs (AIs 710, 711, 712, 713.....) alone.
8006	Component identification	01	Identification of a trade item	Other GTINs cannot be used with AI (8006). The trade item is identified by a GTIN contained in the AI (8006).
<u>8111</u>	<u>Applicable Loyalty Points for Coupon Value</u>	<u>390n or 394n</u>	<u>Coupon value or Percentage Discount of a coupon</u>	<u>Only one discount condition Element String may be applied on a coupon</u>
8018	Global Service Relation Number for the Recipient	8017	Global Service Relation Number for the Provider	Only one Global Service Relation Number (recipient or provider) can be applied at one time for identification of an individual in a given service relationship

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4.13.2. Mandatory Association of Element Strings

This section defines the Element Strings that mandate the appearance of another Element String on the same physical entity.

Figure 4.13.2-1. Mandatory Association of Element Strings

If Element String		Then Mandatory Associated Element String	Comment
AI	Designation		
01 with N ₁ = 0	Identification of a Variable Measure Trade Item Scanned at POS	30 or 3nnn* or 3nnn**	Mandatory association with a variable count or a trade measure information scanned at POS identified with GTIN-12 or GTIN-13. Only GS1 DataBar Expanded barcodes can encode associated elements strings for use at POS. (See Note at bottom)
01 or 02 with N ₁ = 9	Identification of a Variable Measure Trade Item Not Scanned at POS	30 or 3nnn* or 3nnn** or 8001	Mandatory association with variable measure information not scanned at POS identified with a GTIN-14 starting with Indicator digit 9 (See Note at bottom) Only GS1-128, ITF-14, and GS1 DataBar Expanded barcodes can encode a GTIN with N ₁ = 9.
02	Identification of logistic unit contents	00	Mandatory association with an SSCC (Serial Shipping Container Code)
02	Identification of logistic unit contents	37	Mandatory count of the contained trade items



If Element String		Then Mandatory Associated Element String	Comment
10	Batch/lot number	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
11, 13, 15, 16	Dates	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
12	Due date	8020 and 415	Mandatory association with the payment slip reference number and the Global Location Number (GLN) of the invoicing party
17	Expiration Date	01 or 02 or 255	Mandatory association with a GTIN or with the identification of logistic unit contents or with the Global Coupon Number
20	Product variant	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
21	Serial number	01	Mandatory association with a GTIN of a single trade item (a serial number cannot apply to a grouping of trade items). SGTIN is a common term for the mandatory association of AI (21) with GTIN AI (01)
240	Additional product identification	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
241	Customer part number	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
242	Made-to-Order Variation Number	01 or 02 with N _i = 9	Mandatory association with a GTIN-14 with Indicator Digit 9 represents a Custom Industrial Supply Item
243	Packaging Component Number	01	Mandatory association with GTIN
250	Secondary serial number	01 and 21	Mandatory association with a GTIN (a secondary serial number cannot apply to a grouping of trade items) and the serial number of the trade item AI(21)
251	Reference to source entity	01	Mandatory association with GTIN of the trade item
254	Extension component of a GLN	414	Mandatory association with AI (414). Only GS1-128, GS1 DataBar Expanded symbologies, and EPC RFID tags are valid. This is used with GLN and not GTIN.
30	Variable count	01 or 02	Mandatory association with a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS) or the identification of variable measure content of a logistic unit
3nnn*	Trade measures that cannot be summed	01	Mandatory association with a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS)
3nnn**	Trade measures that can be summed	01 or 02	Mandatory association with a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS) or the identification of variable measure content of a logistic unit



If Element String		Then Mandatory Associated Element String	Comment
3nnn***	Logistic measures	00 or 01	Mandatory association with an SSCC or a variable measure GTIN for trade item not scanned at POS (e.g., a GTIN-14 starting with the digit 9)
337n	Kilograms per square metre	01	Mandatory association with a GTIN
37	Count of units contained	02	Mandatory association with the identification of logistic unit contents
390n	Amount payable or Coupon value – single monetary area	8020 and 415 or 255	Mandatory association with the payment slip reference number and the GLN of the invoicing party or with the Global Coupon Number
391n	Amount payable – with ISO currency code	8020 and 415	Mandatory association with the payment slip reference number and the GLN of the invoicing party
392n	Amount payable – when scanned at POS - single monetary unit	01	Mandatory association with a variable count or a trade measure scanned at POS when identified with a GTIN-12 or GTIN-13.
392n	Amount payable when not scanned at POS – single monetary unit	01	Mandatory association with a variable measure information when identified GTIN-14.
393n	Amount payable – when scanned at POS –with ISO currency code	01	Mandatory association with a variable count or a variable measure when scanned at POS and identified with GTIN-12 or GTIN-13.
393n	Amount payable when not scanned at POS – with ISO currency code	01	Mandatory association with a variable measure information when identified with a GTIN-14.
394n	Percentage of a coupon	255	Mandatory association with the Global Coupon Number
403	Routing code	00	Mandatory association with an SSCC
415	GLN of the invoicing party	8020	Mandatory association with payment slip reference number
422	Country of origin	01 or 02	Mandatory association with a GTIN
423	Country of initial processing	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
424	Country of processing	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
425	Country of disassembly	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
426	Country of full processing	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents

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If Element String		Then Mandatory Associated Element String	Comment
427	Country Subdivision of Origin Code for a Trade Item	01 or 02 and 422	Mandatory association with a GTIN and the Country of Origin of the trade item
7001	NATO stock number	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
7002	UN/ECE meat carcasses and cuts classification	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
7003	Expiration Date and Time	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
7004	Active Potency	01 and 10	Mandatory association with the GTIN and Batch/Lot Number
7005	Catch Area	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
7006	First Freeze Date	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
7007	Harvest Date	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
7008	Species for Fishery Purposes	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
7009	Fishing Gear Type	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
7010	Production Method	01 or 02	Mandatory association with a Global Trade Item Number (GTIN) or with the identification of logistic unit contents
703(s)	Number of processor	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
710	National Healthcare Reimbursement Number	01	Mandatory association with the GTIN of the trade item
711	National Healthcare Reimbursement Number	01	Mandatory association with the GTIN of the trade item
712	National Healthcare Reimbursement Number	01	Mandatory association with the GTIN of the trade item
713	National Healthcare Reimbursement Number	01	Mandatory association with the GTIN of the trade item
8001	Variables of roll products	01	Mandatory association with a variable measure GTIN (e.g., an GTIN-14 starting with the digit 9)



If Element String		Then Mandatory Associated Element String	Comment
8005	Price per unit of measure	01 or 02	Mandatory association with a GTIN for a variable measure trade item (e.g., GTIN-12 or GTIN-13 for trade items scanned at POS, GTIN-14s starting with Indicator digit 9 for trade items not scanned at POS) or the identification of variable measure content of a logistic unit.
8007	International Bank Account Number	8020 and 415	Mandatory association with the payment slip reference number and the GLN of the invoicing party
8008	Date and time of production	01 or 02	Mandatory association with a GTIN or with the identification of logistic unit contents
8011	Component / Part Identifier Serial Number	8010	Mandatory association with Component / Part Identifier
8012	Software Version	01	Mandatory association with a Global Trade Item Number (GTIN)
8019	Service Relation Instance Number	8018	Mandatory association with a Global Service Relation Number (GSRN), AI 8018
8020	Payment slip reference number	415	Mandatory association with the GLN of the invoicing party
8111	Loyalty Points of a Coupon	255	Mandatory association with the Global Coupon Number
8200	Extended Packaging URL	01	Mandatory association with GTIN

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- * Is (3nnn) where the first three digits are 312, 313, 324, 325, 326, 327, 328, and 329
- ** Is (3nnn) where the first three digits are 310, 311, 314, 315, 316, 320, 321, 322, 323, 350, 351, 352, 356, 357, 360, 361, 364, 365, and 366
- *** Is (3nnn) where the first three digits are 330, 331, 332, 333, 334, 335, 336, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 353, 354, 355, 362, 363, 367, 368, and 369

 **Note:** Exception for Point-of-Sale. See Figure 5.5.2.6 – 1. Areas of GS1 System Application.

4.14. Human Readable Interpretation (HRI) Rules

Human Readable Interpretation rules are provided to standardize requirements for brand owners and users to facilitate common training for operators who encounter GS1 AIDC data carriers that fail to scan or read. There are two categories of rules:

- General Rules that apply independent of sector, product category, or region
- Sector Specific Rules which must be aligned with the General Rules

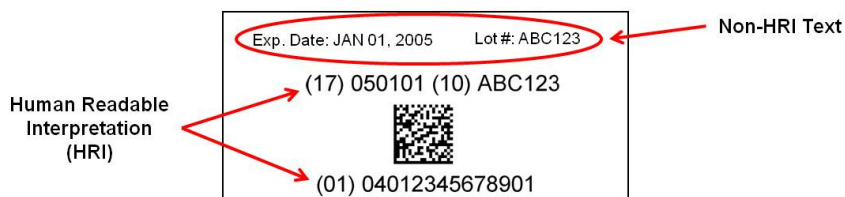
For the purposes of interpreting this standard, there are two types of text that appear on a label, package, or item; Human-Readable Interpretation (HRI) and Non-HRI Text.

- Human Readable Interpretation (HRI) is the information below or beside a barcode or tag which is encoded in the barcode or tag and represents the same characters as carried in the barcode or tag (See Section 8 Glossary for full definition).



- Non-HRI Text is all other text on package, label or item (See Section 8 Glossary for full definition).

Figure 4.14-1. Example of HRI and Non-HRI Text



- ✓ **Note:** The following rules are intended for global use. Exceptions may occur only when local regulatory or legal requirements mandate otherwise
- ✓ **Note:** At present, HRI rules are applicable to barcodes as rules for EPCglobal RFID tags are under development.

Human Readable Interpretation Rules

1. Whether a GS1 AIDC Data Carrier encodes a GS1 Identification Key, GS1 Key Attributes, or a combination of both, the HRI should be placed below the barcode and grouped together wherever physically possible while maintaining the HRI legibility and minimum barcode height (as specified in the appropriate Symbol Specification Table referenced by the GS1 AIDC Application Standard).
 - a. In cases where the HRI must be printed above, to the left, or to the right of the symbol due to packaging or space constraints, HRI shall always be printed adjacent to (obviously associated with) the GS1 AIDC data carrier while protecting quiet zones.
 - b. If the HRI for GS1 Identification Keys and GS1 Key Attributes is split (for example GS1 Key HRI is below the barcode and GS1 Key attributes HRI is above the barcode), the preference for GS1 Key HRI placement is always below the barcode.
 - c. When HRI is grouped together (for example, all HRI data is grouped below the barcode or all HRI data is grouped above the barcode), HRI shall always follow the encoding sequencing of the GS1 AIDC data carrier.
2. A single data element shall not be broken into two lines of HRI, for example the data for a serial number would appear on one line of HRI.
3. Parentheses shall surround AIs in HRI but are not encoded in the GS1 AIDC data carrier.
4. A clearly legible font shall be used (e.g., OCR-B as defined in *ISO 1073-2*) and the character set as defined in Section 7.11. Reasonable alternative type fonts and character sizes are acceptable provided the interpretation is clearly legible.
5. HRI shall be limited to element strings and will not include GS1 AIDC data carrier overhead such as FNC1 characters.
6. If the required barcode and associated HRI is marked directly on the part, then both satisfy the requirements for Healthcare Primary Package marking (see Section 2.1.2.3) if the barcode can be scanned and the HRI is legible through a panel in the primary packaging.
7. HRI shall appear except in rare circumstances for specific applications where there are extreme space constraints (e.g., direct part marking). If the GS1 AIDC data carrier cannot